METHOD FOR PACKET SCHEDULING AND RADIO RESOURCE ALLOCATION IN A WIRELESS COMMUNICATION SYSTEM

ABSTRACT OF THE DISCLOSURE

A method of performing packet level transmission scheduling in a communications system including a plurality of cells, each cell including a base station and a plurality of mobile stations. The method performs scheduling while considering radio resource allocation at the wireless access node. In a schedule plan phase of the method, average power and average effective data rate are determined for all mobile stations in the system. In addition, the planned fraction of frames ρ that each mobile in the system will transmit is determined so that resources are allocated fairly. In the actual schedule phase of the method, current power and effective data rate values are compared to the average power values. This information along with the ρ values is used to determine the actual schedule of packet transmissions for all mobiles in a particular cell.